

2/3

=> fil lreg

FILE 'LREGISTRY' ENTERED AT 15:31:03 ON 18 MAY 2004  
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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LREGISTRY IS A STATIC LEARNING FILE

=> fil beilstein

FILE 'BEILSTEIN' ENTERED AT 15:31:08 ON 18 MAY 2004  
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FILE RELOADED ON OCTOBER 20, 2002  
FILE LAST UPDATED ON MARCH 30, 2004

FILE COVERS 1771 TO 2003.

\*\*\* FILE CONTAINS 8,932,479 SUBSTANCES \*\*\*

>>> PLEASE NOTE: Reaction data and substance data are stored in  
separate documents and can not be searched together in one  
query.

Reaction data for BEILSTEIN compounds may be displayed  
immediately with the display codes PRE (preparations) and REA  
(reactions). A substance answer set retrieved after the search  
for a chemical name, a molecular formula or a structure search  
for example can be restricted to compounds with available  
reaction information by concatenation with PRE/FA, REA/FA or  
more general with RX/FA. The BEILSTEIN Registry Number (BRN)  
is the link between a BEILSTEIN compound and belonging reactions.  
For more detailed reaction searches BRNs can be selected from  
substance answer sets and searched in the next step as reaction  
partner BRNs - Reactant (RX.RBRN) or Product BRN (RX.PBRN).  
After a search for reaction details substance documents  
associated with reactants or products may be retrieved by  
searching RX.PBRNs or RX.RBRNs as BRNs. <<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

\*\*\*\*\*  
\* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST. \*  
\* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE \*  
\* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE \*  
\* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS. \*  
\* FOR PRICE INFORMATION SEE HELP COST \*  
\*\*\*\*\*

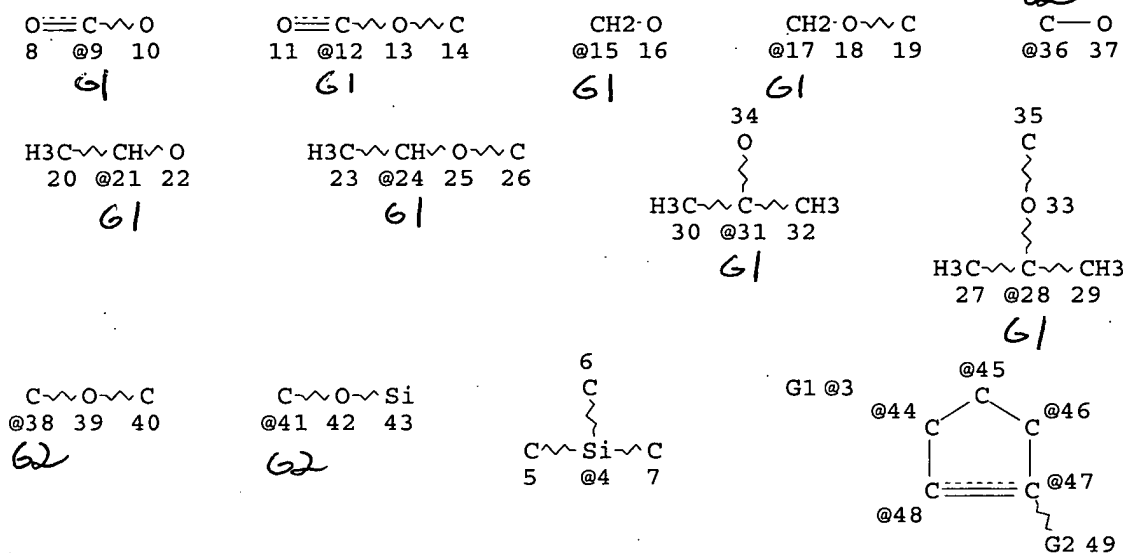
=> d que l14

L12 STR

L12 STR

Berch PCT/US03/39554 Beilstein

05/19/2004



VAR G1=9/12/15/17/21/24/31/28

VAR G2=36/38/41

VPA 4-48/44/45/46/47 U

VPA 3-48/44/45/46/47 U

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 10

CONNECT IS E1 RC AT 16

CONNECT IS E1 RC AT 22

CONNECT IS E1 RC AT 34

CONNECT IS E1 RC AT 37

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

L13 29 SEA FILE=BEILSTEIN SSS FUL L12

L14 17 SEA FILE=BEILSTEIN ABB=ON PLU=ON L13 NOT (RN/FA)

→ remove hits that have CAS RNs

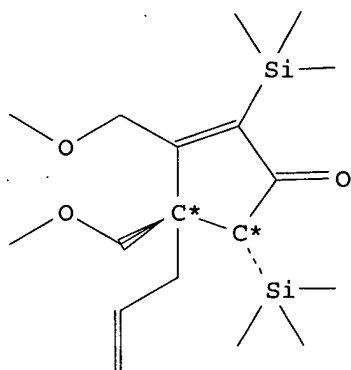
=>

=> d l19 ide pre 1

L19 ANSWER 1 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN):	9508652
Chemical Name (CN):	4-allyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilyl-cyclopent-2-enone
Autonom Name (AUN):	4-allyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilyl-cyclopent-2-enone
Molec. Formula (MF):	C18 H34 O3 Si2
Molecular Weight (MW):	354.64
Lawson Number (LN):	16753, 3777, 289
File Segment (FS):	racemate, Stereo compound

Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 8018199  
Tautomer ID (TAUTID): 8915004  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



## Fragment Notes:

Additionally represents mirror image  
Stereo Descriptor: +/-

## Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	2
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

## Reaction:

RX

Reaction ID (.ID): 9396925  
Reactant BRN (.RBRN): 9498047, 3587215  
Reactant (.RCT): 3,4-bis-methoxymethyl-2,5-bis-

Product BRN (.PBRN): 9508652, 9508651  
Product (.PRO): 4-allyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone,  
4-allyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
No. of React. Details (.NVAR): 1

## Reaction Details:

RX

Reaction RID (.RID): 9396925.1  
Reaction Classification (.CL): Preparation  
Solvent (.SOL): tetrahydrofuran  
Time (.TIM): 1 hour(s)  
Temperature (.T): -78 Cel  
Reference(s):  
1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14),  
<2003>, 2457 - 2460; BABS-6411831

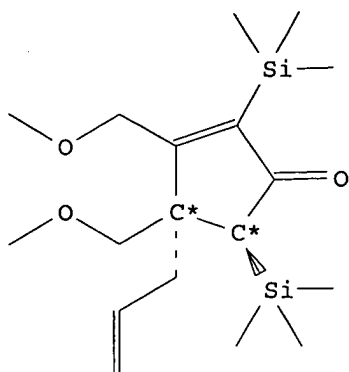
=&gt;

=&gt; d l19 ide pre 2-

YOU HAVE REQUESTED DATA FROM 15 ANSWERS - CONTINUE? Y/(N):y

L19 ANSWER 2 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9508651  
Chemical Name (CN): 4-allyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
Autonom Name (AUN): 4-allyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
Molec. Formula (MF): C18 H34 O3 Si2  
Molecular Weight (MW): 354.64  
Lawson Number (LN): 16753, 3777, 289  
File Segment (FS): racemate, Stereo compound  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 8018199  
Tautomer ID (TAUTID): 8915004  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



## Fragment Notes:

Additionally represents mirror image  
Stereo Descriptor: +/-

## Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	2
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
NMR	Nuclear Magnetic Resonance	3

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

## Reaction:

RX

Reaction ID (.ID): 9396925  
 Reactant BRN (.RBRN): 9498047, 3587215  
 Reactant (.RCT): 3,4-bis-methoxymethyl-2,5-bis-trimethylsilyl-cyclopenta-2,4-dienone, isopropylmagnesium bromide  
 Product BRN (.PBRN): 9508652, 9508651  
 Product (.PRO): 4-allyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilyl-cyclopent-2-enone, 4-allyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilyl-cyclopent-2-enone  
 No. of React. Details (.NVAR): 1

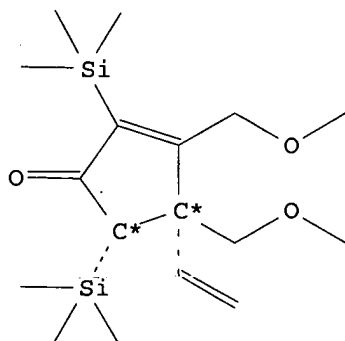
## Reaction Details:

RX

Reaction RID (.RID): 9396925.1  
Reaction Classification (.CL): Preparation  
Solvent (.SOL): tetrahydrofuran  
Time (.TIM): 1 hour(s)  
Temperature (.T): -78 Cel  
Reference(s):  
1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14),  
<2003>, 2457 - 2460; BABS-6411831

L19 ANSWER 3 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9506094  
Chemical Name (CN): 3,4-bis-methoxymethyl-2,5-bis-  
trimethylsilyl-4-vinyl-cyclopent-2-enone  
Autonom Name (AUN): 3,4-bis-methoxymethyl-2,5-bis-  
trimethylsilyl-4-vinyl-cyclopent-2-enone  
Molec. Formula (MF): C17 H32 O3 Si2  
Molecular Weight (MW): 340.61  
Lawson Number (LN): 16752, 3777, 289  
File Segment (FS): racemate, Stereo compound  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 8015776  
Tautomer ID (TAUTID): 8914050  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



## Fragment Notes:

Additionally represents mirror image  
Stereo Descriptor: +/-

## Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3

FS	File Segment	2
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	2
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	1

Reaction:

RX

Reaction ID (.ID): 9396197  
Reactant BRN (.RBRN): 9498047, 3535841  
Reactant (.RCT): 3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopenta-2,4-dienone, vinylmagnesium bromide  
Product BRN (.PBRN): 9506094  
Product (.PRO): 3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-4-vinyl-cyclopent-2-enone  
No. of React. Details (.NVAR): 1

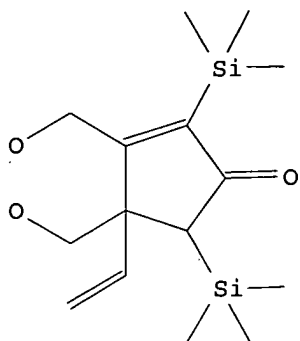
Reaction Details:

RX

Reaction RID (.RID): 9396197.1  
Reaction Classification (.CL): Preparation  
Yield (.YDT): 87 percent (BRN=9506094)  
Solvent (.SOL): tetrahydrofuran  
Time (.TIM): 1 hour(s)  
Temperature (.T): -78 Cel  
Reference(s):  
1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14), <2003>, 2457 - 2460; BABS-6411831

L19 ANSWER 4 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9503750  
Chemical Name (CN): 3,4-bis-hydroxymethyl-2,5-bis-trimethylsilanyl-4-vinyl-cyclopent-2-enone  
Autonom Name (AUN): 3,4-bis-hydroxymethyl-2,5-bis-trimethylsilanyl-4-vinyl-cyclopent-2-enone  
Molec. Formula (MF): C15 H28 O3 Si2  
Molecular Weight (MW): 312.56  
Lawson Number (LN): 16752, 3777  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 8017707  
Tautomer ID (TAUTID): 8922180  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



## Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	2
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
NMR	Nuclear Magnetic Resonance	2

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	2
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	1

## Reaction:

RX

Reaction ID (.ID): 9396184  
 Reactant BRN (.RBRN): 9212004, 3535841  
 Reactant (.RCT): 3,4-bis-hydroxymethyl-2,5-bis-trimethylsilyl-cyclopenta-2,4-dienone, vinylmagnesium bromide  
 Product BRN (.PBRN): 9503750  
 Product (.PRO): 3,4-bis-hydroxymethyl-2,5-bis-trimethylsilyl-4-vinyl-cyclopent-2-enone  
 No. of React. Details (.NVAR): 1

## Reaction Details:

RX

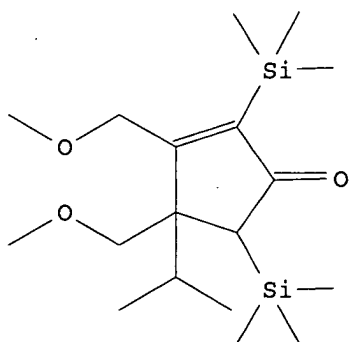
Reaction RID (.RID): 9396184.1  
 Reaction Classification (.CL): Preparation  
 Yield (.YDT): 82 percent (BRN=9503750)  
 Solvent (.SOL): tetrahydrofuran



Time (.TIM): 1 hour(s)  
Temperature (.T): -78 - 23 Cel  
Reference(s):  
1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14),  
<2003>, 2457 - 2460; BABS-6411831

L19 ANSWER 5 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9501820  
Chemical Name (CN): 4-isopropyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
Autonom Name (AUN): 4-isopropyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
Molec. Formula (MF): C18 H36 O3 Si2  
Molecular Weight (MW): 356.65  
Lawson Number (LN): 16754, 3777, 289  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 8015939  
Tautomer ID (TAUTID): 8912193  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	2
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	1

Reaction:

RX

Reaction ID (.ID): 9396924  
Reactant BRN (.RBRN): 9498047, 3587215  
Reactant (.RCT): 3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopenta-2,4-dienone, isopropylmagnesium bromide  
Product BRN (.PBRN): 9506052, 9501820  
Product (.PRO): 1-isopropyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopenta-2,4-dienol, 4-isopropyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
No. of React. Details (.NVAR): 1

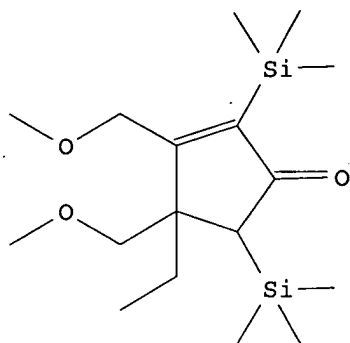
Reaction Details:

RX

Reaction RID (.RID): 9396924.1  
Reaction Classification (.CL): Preparation  
Yield (.YDT): 50 percent (BRN=9506052), 41 percent (BRN=9501820)  
Solvent (.SOL): tetrahydrofuran  
Time (.TIM): 1 hour(s)  
Temperature (.T): -78 Cel  
Reference(s):  
1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14), <2003>, 2457 - 2460; BABS-6411831

L19 ANSWER 6 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9501632  
Chemical Name (CN): 4-ethyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
Autonom Name (AUN): 4-ethyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
Molec. Formula (MF): C17 H34 O3 Si2  
Molecular Weight (MW): 342.62  
Lawson Number (LN): 16752, 3777, 289  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 8015775  
Tautomer ID (TAUTID): 8912670  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



## Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	2
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	1

## Reaction:

RX

Reaction ID (.ID): 9396109  
 Reactant BRN (.RBRN): 9498047, 3535267  
 Reactant (.RCT): 3,4-bis-methoxymethyl-2,5-bis-trimethylsilyl-cyclopenta-2,4-dienone, ethylmagnesium bromide  
 Product BRN (.PBRN): 9505897, 9501632  
 Product (.PRO): 1-ethyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilyl-cyclopenta-2,4-dienol, 4-ethyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilyl-cyclopent-2-enone  
 No. of React. Details (.NVAR): 1

## Reaction Details:

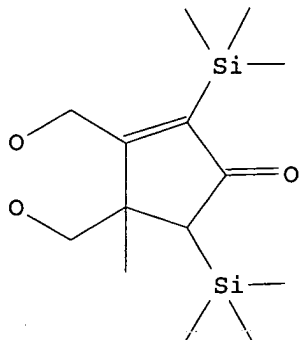
RX

Reaction RID (.RID): 9396109.1  
 Reaction Classification (.CL): Preparation

Yield (.YDT): 43 percent (BRN=9505897), 31 percent (BRN=9501632)  
Solvent (.SOL): tetrahydrofuran  
Time (.TIM): 1 hour(s)  
Temperature (.T): -78 Cel  
Reference(s):  
1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14), <2003>, 2457 - 2460; BABS-6411831

L19 ANSWER 7 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9499803  
Chemical Name (CN): 3,4-bis-hydroxymethyl-4-methyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
Autonom Name (AUN): 3,4-bis-hydroxymethyl-4-methyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
Molec. Formula (MF): C14 H28 O3 Si2  
Molecular Weight (MW): 300.54  
Lawson Number (LN): 16759, 3777  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 8014126  
Tautomer ID (TAUTID): 8919885  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	2
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1

UPD	Update Date	1
NMR	Nuclear Magnetic Resonance	2

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	2
RXREA	Substance is Reaction Reactant	1
RXPRO	Substance is Reaction Product	1

Reaction:

RX

Reaction ID (.ID): 9396803  
Reactant BRN (.RBRN): 9212004, 3587200  
Reactant (.RCT): 3,4-bis-hydroxymethyl-2,5-bis-trimethylsilanyl-cyclopenta-2,4-dienone, methylmagnesium bromide  
Product BRN (.PBRN): 9499803  
Product (.PRO): 3,4-bis-hydroxymethyl-4-methyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
No. of React. Details (.NVAR): 1

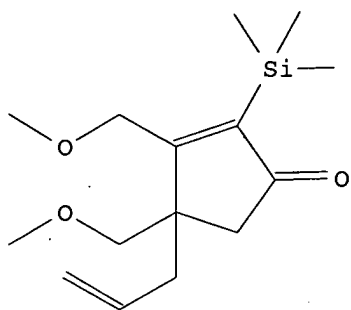
Reaction Details:

RX

Reaction RID (.RID): 9396803.1  
Reaction Classification (.CL): Preparation  
Yield (.YDT): 95 percent (BRN=9499803)  
Solvent (.SOL): tetrahydrofuran, diethyl ether  
Time (.TIM): 20 min  
Temperature (.T): -78 Cel  
Reference(s):  
1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14), <2003>, 2457 - 2460; BABS-6411831

L19 ANSWER 8 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9495884  
Chemical Name (CN): 4-allyl-3,4-bis-methoxymethyl-2-trimethylsilanyl-cyclopent-2-enone  
Autonom Name (AUN): 4-allyl-3,4-bis-methoxymethyl-2-trimethylsilanyl-cyclopent-2-enone  
Molec. Formula (MF): C15 H26 O3 Si  
Molecular Weight (MW): 282.45  
Lawson Number (LN): 16752, 3777, 289  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 8010872  
Tautomer ID (TAUTID): 8908233  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



## Field Availability:

Code	Name	Occurrence
=====	=====	=====
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
=====	=====	=====
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

## Reaction:

RX

Reaction ID (.ID):	9428890
Reactant BRN (.RBRN):	9504362
Reactant (.RCT):	4-allyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilyl-cyclopent-2-enone
Product BRN (.PBRN):	9495884
Product (.PRO):	4-allyl-3,4-bis-methoxymethyl-2-trimethylsilyl-cyclopent-2-enone
No. of React. Details (.NVAR):	1

## Reaction Details:

RX

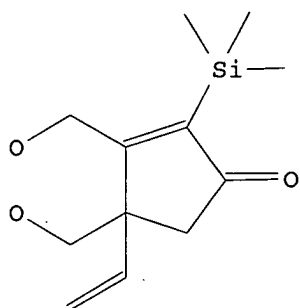
Reaction RID (.RID):	9428890.1
Reaction Classification (.CL):	Preparation
Yield (.YDT):	95 percent (BRN=9495884)
Reagent (.RGT):	NaOH
Solvent (.SOL):	ethanol
Time (.TIM):	1 hour(s)
Temperature (.T):	50 Cel

## Reference(s):

1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14), <2003>, 2457 - 2460; BABS-6411831

L19 ANSWER 9 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9493063  
 Chemical Name (CN): 3,4-bis-hydroxymethyl-2-trimethylsilanyl-4-vinyl-cyclopent-2-enone  
 Autonom Name (AUN): 3,4-bis-hydroxymethyl-2-trimethylsilanyl-4-vinyl-cyclopent-2-enone  
 Molec. Formula (MF): C12 H20 O3 Si  
 Molecular Weight (MW): 240.37  
 Lawson Number (LN): 16759, 3777  
 Compound Type (CTYPE): isocyclic  
 Constitution ID (CONSID): 8008377  
 Tautomer ID (TAUTID): 8915708  
 Entry Date (DED): 2004/01/21  
 Update Date (DUPD): 2004/01/21



## Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	2
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1

RXPRO Substance is Reaction Product 1

## Reaction:

RX

Reaction ID (.ID): 9428688  
Reactant BRN (.RBRN): 9503750  
Reactant (.RCT): 3,4-bis-hydroxymethyl-2,5-bis-trimethylsilyl-4-vinyl-cyclopent-2-enone  
Product BRN (.PBRN): 9493063  
Product (.PRO): 3,4-bis-hydroxymethyl-2-trimethylsilyl-4-vinyl-cyclopent-2-enone  
No. of React. Details (.NVAR): 1

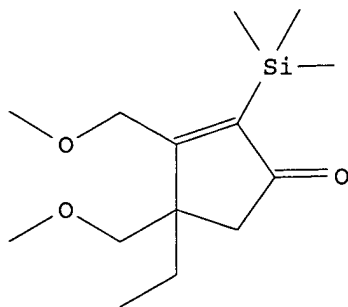
## Reaction Details:

RX

Reaction RID (.RID): 9428688.1  
Reaction Classification (.CL): Preparation  
Yield (.YDT): 87 percent (BRN=9493063)  
Reagent (.RGT): NaOH  
Solvent (.SOL): ethanol  
Time (.TIM): 1 hour(s)  
Temperature (.T): 50 Cel  
Reference(s):  
1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14), <2003>, 2457 - 2460; BABS-6411831

L19 ANSWER 10 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9491361  
Chemical Name (CN): 4-ethyl-3,4-bis-methoxymethyl-2-trimethylsilyl-cyclopent-2-enone  
Autonom Name (AUN): 4-ethyl-3,4-bis-methoxymethyl-2-trimethylsilyl-cyclopent-2-enone  
Molec. Formula (MF): C14 H26 O3 Si  
Molecular Weight (MW): 270.44  
Lawson Number (LN): 16759, 3777, 289  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 8006796  
Tautomer ID (TAUTID): 8905384  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



Field Availability:



Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Reaction:

RX

Reaction ID (.ID): 9428041  
Reactant BRN (.RBRN): 9501632  
Reactant (.RCT): 4-ethyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
Product BRN (.PBRN): 9491361  
Product (.PRO): 4-ethyl-3,4-bis-methoxymethyl-2-trimethylsilanyl-cyclopent-2-enone  
No. of React. Details (.NVAR): 1

Reaction Details:

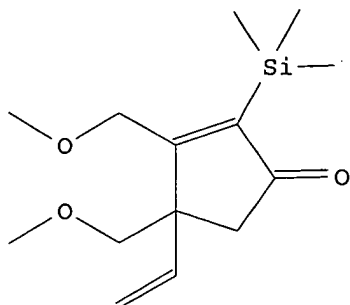
RX

Reaction RID (.RID): 9428041.1  
Reaction Classification (.CL): Preparation  
Yield (.YDT): 93 percent (BRN=9491361)  
Reagent (.RGT): NaOH  
Solvent (.SQL): ethanol  
Time (.TIM): 1 hour(s)  
Temperature (.T): 50 Cel  
Reference(s):  
1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14),  
<2003>, 2457 - 2460; BABS-6411831

L19 ANSWER 11 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9491360  
Chemical Name (CN): 3,4-bis-methoxymethyl-2-trimethylsilanyl-4-vinyl-cyclopent-2-enone  
Autonom Name (AUN): 3,4-bis-methoxymethyl-2-trimethylsilanyl-4-vinyl-cyclopent-2-enone  
Molec. Formula (MF): C14 H24 O3 Si  
Molecular Weight (MW): 268.43  
Lawson Number (LN): 16759, 3777, 289  
Compound Type (CTYPE): isocyclic

Constitution ID (CONSID): 8006795  
Tautomer ID (TAUTID): 8905385  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



## Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	2
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

## Reaction:

RX

Reaction ID (.ID): 9429397  
Reactant BRN (.RBRN): 9506094  
Reactant (.RCT): 3,4-bis-methoxymethyl-2,5-bis-trimethylsilyl-4-vinyl-cyclopent-2-enone  
Product BRN (.PBRN): 9491360  
Product (.PRO): 3,4-bis-methoxymethyl-2-trimethylsilyl-4-vinyl-cyclopent-2-enone  
No. of React. Details (.NVAR): 1

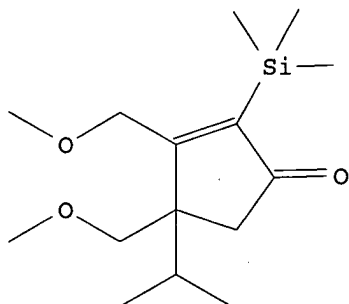
## Reaction Details:

RX

Reaction RID (.RID): 9429397.1  
Reaction Classification (.CL): Preparation  
Yield (.YDT): 91 percent (BRN=9491360)  
Reagent (.RGT): NaOH  
Solvent (.SOL): ethanol  
Time (.TIM): 1 hour(s)  
Temperature (.T): 50 Cel  
Reference(s):  
1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14),  
<2003>, 2457 - 2460; BABS-6411831

L19 ANSWER 12 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9491336  
Chemical Name (CN): 4-isopropyl-3,4-bis-methoxymethyl-2-trimethylsilanyl-cyclopent-2-enone  
Autonom Name (AUN): 4-isopropyl-3,4-bis-methoxymethyl-2-trimethylsilanyl-cyclopent-2-enone  
Molec. Formula (MF): C15 H28 O3 Si  
Molecular Weight (MW): 284.47  
Lawson Number (LN): 16753, 3777, 289  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 8006777  
Tautomer ID (TAUTID): 8905394  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1

NMR Nuclear Magnetic Resonance 3

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

## Reaction:

RX

Reaction ID (.ID): 9428097  
Reactant BRN (.RBRN): 9501820  
Reactant (.RCT): 4-isopropyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
Product BRN (.PBRN): 9491336  
Product (.PRO): 4-isopropyl-3,4-bis-methoxymethyl-2-trimethylsilanyl-cyclopent-2-enone  
No. of React. Details (.NVAR): 1

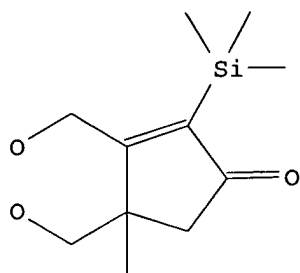
## Reaction Details:

RX

Reaction RID (.RID): 9428097.1  
Reaction Classification (.CL): Preparation  
Yield (.YDT): 94 percent (BRN=9491336)  
Reagent (.RGT): NaOH  
Solvent (.SOL): ethanol  
Time (.TIM): 1 hour(s)  
Temperature (.T): 50 Cel  
Reference(s):  
1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14),  
<2003>, 2457 - 2460; BABS-6411831

L19 ANSWER 13 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9488323  
Chemical Name (CN): 3,4-bis-hydroxymethyl-4-methyl-2-trimethylsilanyl-cyclopent-2-enone  
Autonom Name (AUN): 3,4-bis-hydroxymethyl-4-methyl-2-trimethylsilanyl-cyclopent-2-enone  
Molec. Formula (MF): C11 H20 O3 Si  
Molecular Weight (MW): 228.36  
Lawson Number (LN): 16758, 3777  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 8004239  
Tautomer ID (TAUTID): 8914464  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



## Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	2
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
IR	Infrared Spectrum	1
NMR	Nuclear Magnetic Resonance	3

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

## Reaction:

RX

Reaction ID (.ID): 9427536  
 Reactant BRN (.RBRN): 9499803  
 Reactant (.RCT): 3,4-bis-hydroxymethyl-4-methyl-2,5-bis-trimethylsilyl-cyclopent-2-enone  
 Product BRN (.PBRN): 9488323  
 Product (.PRO): 3,4-bis-hydroxymethyl-4-methyl-2-trimethylsilyl-cyclopent-2-enone  
 No. of React. Details (.NVAR): 1

## Reaction Details:

RX

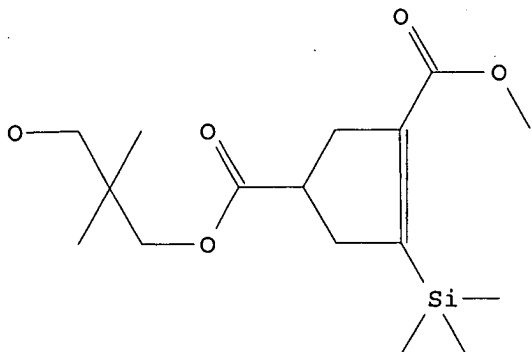
Reaction RID (.RID): 9427536.1  
 Reaction Classification (.CL): Preparation  
 Yield (.YDT): 94 percent (BRN=9488323)  
 Reagent (.RGT): NaOH  
 Solvent (.SOL): ethanol  
 Time (.TIM): 1 hour(s)  
 Temperature (.T): 50 Cel

## Reference(s):

1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14), <2003>, 2457 - 2460; BABS-6411831

L19 ANSWER 14 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 7541649  
Chemical Name (CN): 4-trimethylsilanyl-cyclopent-3-ene-1,3-dicarboxylic acid 1-(3-hydroxy-2,2-dimethyl-propyl) ester 3-methyl ester  
Autonom Name (AUN): 4-trimethylsilanyl-cyclopent-3-ene-1,3-dicarboxylic acid 1-(3-hydroxy-2,2-dimethyl-propyl) ester 3-methyl ester  
Molec. Formula (MF): C16 H28 O5 Si  
Molecular Weight (MW): 328.48  
Lawson Number (LN): 16757, 3777, 543, 289  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 6445638  
Tautomer ID (TAUTID): 7137236  
Beilstein Citation (BSO): 6-16  
Entry Date (DED): 1997/02/02  
Update Date (DUPD): 1997/11/18



## Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	4
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Reaction:

RX

Reaction ID (.ID): 4517087  
Reactant BRN (.RBRN): 4177162, 1930203  
Reactant (.RCT): 6,6-Dimethyl-1-methylen-4,8-dioxaspiro<2.5>octan, 3-Trimethylsilylmethylpropiolat  
Product BRN (.PBRN): 7541649  
Product (.PRO): 4-trimethylsilyl-cyclopent-3-ene-1,3-dicarboxylic acid 1-(3-hydroxy-2,2-dimethyl-propyl) ester 3-methyl ester  
No. of React. Details (.NVAR): 1

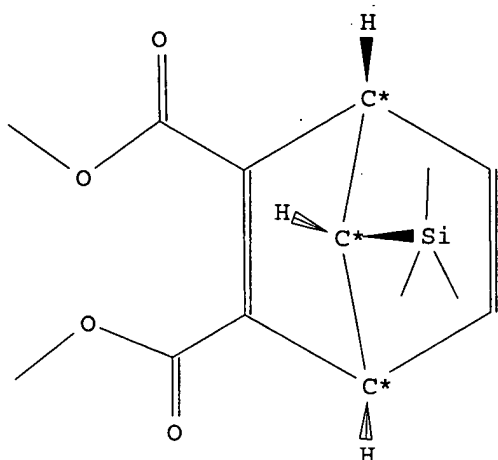
Reaction Details:

RX

Reaction RID (.RID): 4517087.1  
Reaction Classification (.CL): Preparation  
Reagent (.RGT): 2.) Amberlyst 15  
Other Conditions (.COND): 1.) CD<sub>3</sub>CN, 80 deg C, 18 h, 2.) CDCl<sub>3</sub>, H<sub>2</sub>O, 30 min  
Note(s) (.COM): Yield given. Multistep reaction  
Reference(s):  
1. Yamago, Shigeru; Ejiri, Satoshi; Nakamura, Eiichi, Angew.Chem., CODEN: ANCEAD, 107(19), <1995>, 2338-2340; BABS-6026490

L19 ANSWER 15 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 6700373  
Chemical Name (CN): 7-trimethylsilyl-bicyclo<2.2.1>hepta-2,5-diene-2,3-dicarboxylic acid dimethyl ester  
Autonom Name (AUN): 7-trimethylsilyl-bicyclo<2.2.1>hepta-2,5-diene-2,3-dicarboxylic acid dimethyl ester  
Molec. Formula (MF): C<sub>14</sub> H<sub>20</sub> O<sub>4</sub> Si  
Molecular Weight (MW): 280.40  
Lawson Number (LN): 16754, 3777, 289  
File Segment (FS): Stereo compound  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 2749616  
Tautomer ID (TAUTID): 2930989  
Beilstein Citation (BSO): 5-16  
Entry Date (DED): 1994/07/15  
Update Date (DUPD): 1994/07/19



## Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
NMR	Nuclear Magnetic Resonance	1

## This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

## Reaction:

RX

Reaction ID (.ID): 1324814  
 Reactant BRN (.RBRN): 1924523, 607063  
 Reactant (.RCT): cyclopenta-2,4-dienyl-trimethyl-silane,  
 butynedioic acid dimethyl ester  
 Product BRN (.PBRN): 6700373  
 Product (.PRO): Bis-(methoxycarbonyl)-7-anti-  
 trimethylsilyl-bicyclo<2.2.1>heptadien-  
 (2,5)  
 No. of React. Details (.NVAR): 1

## Reaction Details:

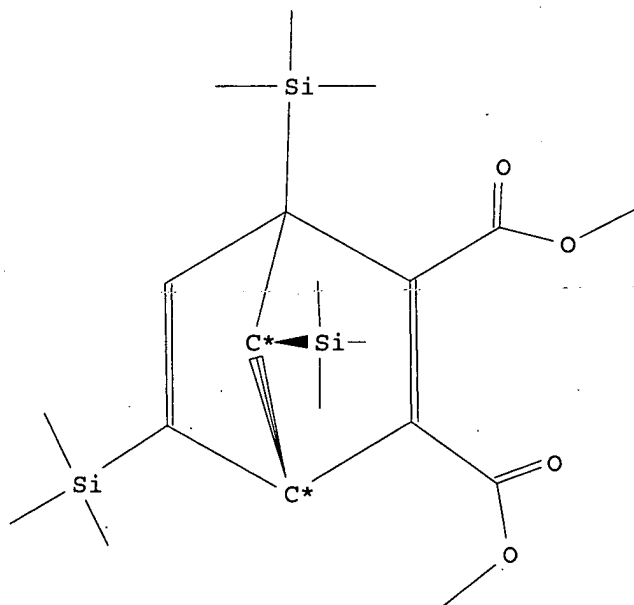
RX



Reaction RID (.RID): 1324814.1  
Reaction Classification (.CL): Preparation  
Reference(s):  
1. Kraihanzel, C.S.; Losee, M.L., J.Amer.Chem.Soc., CODEN: JACSAT, 90,  
<1968>, 4701-4705

L19 ANSWER 16 OF 16 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 3012512  
Chemical Name (CN): 1,5,7-tris-trimethylsilanyl-  
bicyclo<2.2.1>hepta-2,5-diene-2,3-  
dicarboxylic acid dimethyl ester  
Autonom Name (AUN): 1,5,7-tris-trimethylsilanyl-  
bicyclo<2.2.1>hepta-2,5-diene-2,3-  
dicarboxylic acid dimethyl ester  
Molec. Formula (MF): C20 H36 O4 Si3  
Molecular Weight (MW): 424.76  
Lawson Number (LN): 16756, 3777, 289  
File Segment (FS): Stereo compound  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 2783710  
Tautomer ID (TAUTID): 2947797  
Beilstein Citation (BSO): 5-16  
Entry Date (DED): 1989/07/11  
Update Date (DUPD): 1989/07/11



Field Availability:

Code	Name	Occurrence
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BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
NMR	Nuclear Magnetic Resonance	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

Reaction:

RX

Reaction ID (.ID): 8009536  
Product BRN (.PBRN): 3012512  
Product (.PRO): 1,5,7-tris-trimethylsilanyl-  
bicyclo<2.2.1>hepta-2,5-diene-2,3-  
dicarboxylic acid dimethyl ester  
No. of React. Details (.NVAR): 1

Reaction Details:

RX

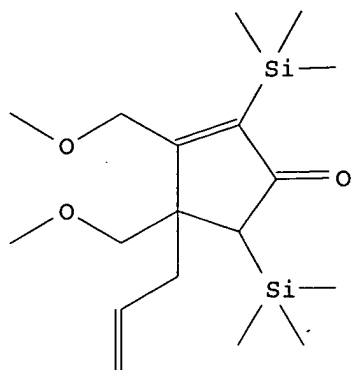
Reaction RID (.RID): 8009536.1  
Reaction Classification (.CL): Preparation (half reaction)  
Reference(s):  
1. Ustynyuk et al., J.Organomet.Chem., CODEN: JORCAI, 96, <1975>, 335,337,339,340,351,352

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L20 ANSWER 1 OF 1 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 9504362  
Chemical Name (CN): 4-allyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
Autonom Name (AUN): 4-allyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilanyl-cyclopent-2-enone  
Molec. Formula (MF): C18 H34 O3 Si2  
Molecular Weight (MW): 354.64  
Lawson Number (LN): 16753, 3777, 289  
Compound Type (CTYPE): isocyclic  
Constitution ID (CONSID): 8018199  
Tautomer ID (TAUTID): 8913519  
Entry Date (DED): 2004/01/21  
Update Date (DUPD): 2004/01/21



## Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXREA	Substance is Reaction Reactant	1

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L20 ANSWER 1 OF 1 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

## Reaction:

RX

Reaction ID (.ID): 9428890  
 Reactant BRN (.RBRN): 9504362  
 Reactant (.RCT): 4-allyl-3,4-bis-methoxymethyl-2,5-bis-trimethylsilyl-cyclopent-2-enone  
 Product BRN (.PBRN): 9495884  
 Product (.PRO): 4-allyl-3,4-bis-methoxymethyl-2-trimethylsilyl-cyclopent-2-enone  
 No. of React. Details (.NVAR): 1

## Reaction Details:

RX

Reaction RID (.RID): 9428890.1  
Reaction Classification (.CL): Preparation  
Yield (.YDT): 95 percent (BRN=9495884)  
Reagent (.RGT): NaOH  
Solvent (.SOL): ethanol  
Time (.TIM): 1 hour(s)  
Temperature (.T): 50 Cel  
Reference(s):

1. Pearson, Anthony J.; Kim, Jin Bum, Org.Lett., CODEN: ORLEF7, 5(14),  
<2003>, 2457 - 2460; BABS-6411831

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